M.TECH. CSE WITH SPECIALIZATION IN SOFTWARE ENGINEERING

PROGRAMME EDUCATIONAL OBJECTIVES
PROGRAMME OUTCOMES
PROGRAMME SPECIFIC OUTCOMES

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

UNIVERSITY SCHOOL OF INFORMATION AND COMMMUNICATION TECHNOLOGY
GAUTAM BUDDHA UNIVERSITY, GREATER NOIDA, UP, INDIA

PROGRAM EDUCATIONAL OBJECTIVES : M.TECH. CSE WITH SPECIALIZATION IN SOFTWARE ENGINEERING

DCSE PEO 1:

To develop students with depth knowledge of computer Science, Computer Applications, Information Technology and Computer Science and Engineering which provide a strong foundation to pursue career in education and software industry for innovation, research and development.

DCSE PEO 2:

To develop the leadership qualities, to lead and work in a team in professional environment, demonstrate professional integrity and feel responsibility towards country at an appropriate level in order to address the issues in a responsive, ethical and innovative manner.

DCSE PEO 3:

To excel in career involving higher order and challenging tasks and try to become a part of success and growth and work in collaboration with all organisation.

DCSE PEO 4: To produce students who are effective in multidisciplinary research and environment by showing their active participation for betterment of society.

DCSE PROGRAM OUTCOMES : M.TECH. CSE WITH SPECIALIZATION IN SOFTWARE ENGINEERING

DCSE PO 1: Engineering Knowledge

Apply the engineering knowledge of mathematics, science, engineering fundamentals with engineering specialization to the solution of complex engineering problems.

DCSE PO 2: Problem Analysis

Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

DCSE PO 3: Design and Development of Solutions

Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

DCSE PO 4: Conduct Investigations of Complex Problems

Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

DCSE PO 5: Modern Tool Usage

Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

DCSE PO 6: The Engineer and Society

Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

DCSE PO 7: Environment and Sustainability

Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

DCSE PO 8: Ethics

Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

DCSE PO 9: Individual and Teamwork

Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

DCSE PO 10: Communication

Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

DCSE PO11: Project Management and Finance

Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

DCSE PO12: Life-Long Learning

Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES : M.TECH. CSE WITH SPECIALIZATION IN SOFTWARE ENGINEERING

DCSE PSO1:

Experiment and prepare programming concepts and provide new ideas and innovations towards research and societal issues in the field of Software Engineering.

DCSE PSO2:

Analyse and develop computer systems in the areas related to algorithms, system software, Advanced Software Engineering, Open Source Software System, Software Engineering for Data Science, Software Engineering for Cloud Computing, artificial intelligence Methods for Software Engineering, big data analytics, block chain, cyber security and networking for efficient design of computer-based systems of varying complexity. Finally specify, design, develop, test and maintain usable systems that behave reliably and efficiently.

DCSE PSO3:

Apply standard and advanced Software Engineering principle, practices and strategies in software project development using open-source programming environment to deliver a quality product for Research, Education and Training and/or E-governance.